Indoor Air Monitor

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Naval Facilities Engineering Service Center

INSIDE THE IAM:

OPNAVINST 5100.23E STATUS

RADM Granuzzo, CNO N45, signed OPNAVINST 5100.23E "Navy Occupational Safety and Health Program Manual," on 15 January 1999. The instruction will be available from the following sources:

- The CNO N454 website (http://www.navosh.net) "References" section, as pdf file(s). Users will be able to print individual chapters or the entire instruction from this site. Only registered users can access the information. If you are working for DOD and your e-mail address ends with ".mil" you can request a user name and password. DOD personnel with "non-mil" e-mail addresses may experience delays in their registration since they will need to be contacted for status verification.

- Navy Directives compact disc (CD) set. The next quarterly version of the Navy Directives CD set (normally distributed to command administrative/directives offices) will include OPNAVINST 5100.23E.

Please note that CNO N454 does not control the CD set distribution. If your office/command wants multiple printed copies of OPNAVINST 5100.23E you can take the Navy Directives CD to the nearest Defense Automated Printing Service (DAPS) office. DAPS printing costs are competitive, and U.S. Government "SmartPay" credit card is accepted for payment. For the location of then earest DAPS office, call (800) 594-3349 or visit http://www.daps.mil.

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SAFETY MANAGEMENT EVALUATIONS AVAILABLE THROUGH THE ESC

NFESC is now offering commanding officers and their safety managers confidential Safety Management Evaluations. The ESC NAVOSH Air Branch will conduct on-site evaluations and provide the CO an exit brief and a written summary report of findings and recommendations.

The evaluations are process/system oriented. The evaluations are conducted by interviewing a sample of key managers, supervisors, and employees to provide the CO a slice view of the activity's safety management processes. The results of these evaluations offer a view towards real life process results and performance.

These evaluations are not a duplication of higher headquarters and IG inspections, and are not "bean-counting" compliance oriented.

For more information e-mail Joe Shepler at sheplerjl@nfesc.navy.mil. Mr. Shepler will conduct the confidential Safety Management Evaluations. He has over 20 years successful experience with safety process/systems management efforts.

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NAVY INDUSTRIAL VENTILATION TRAINING COURSES

The NFESC NAVOSH Air Branch, ESC 425, is offering a two day Industrial Ventilation (IV) System Design Refresher Course 23-25 May 1999, and a two and half day Industrial Ventilation System Testing and Trouble Shooting Course 26-28 May 1999. Both courses will be offered at Naval Medical Center Portsmouth, Building A, Lafayette River Annex, 6500 Hampton Blvd, Norfolk, Virginia.

The IV Design Refresher Course reacquaints the participant with the fundamental information required to design an efficient IV system. Participants in this course are limited to those who have previously completed any fundamental IV design course. The IV Testing Course teaches the basics of IV system testing and troubleshooting. Both courses follow American Conference of Governmental Industrial Hygienist (ACGIH) methods.

Please contact Mr. James D. Kimbrough via e-mail at JDKimbrough@pnh10.med.navy.mil to register for the courses, obtain lodging information, and course location information.

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AMCA DIRECTORY ON WEB PAGE

The Air Movement and Control Association, International, Inc. (AMCA) announced that the 53rd Edition of its Publication 261, Directory of Products Licensed to Use the AMCA Certified Rating Seal, is available on their website. Point your web browser to http://www.amca.org/search.htm and search the ratings directory by product or manufacturer. If you are unable to access the website, contact AMCA at (847) 394-0150 to obtain the free publication. We recommend that all fans used for Navy applications be AMCA certified in both sound rating and air performance.

The AMCA certification for noise and capacity guarantees that the fan performs according to the manufacturers claims. Fans are certified in the following categories: air performance, sound ratings, or both. AMCA also rates other ventilation equipment including evaporative coolers, positive pressure ventilators, louvers, dampers and shutters, air curtains, and agricultural fans.

It is important to understand that even though the fan is AMCA rated it may not perform as expected. Poor fan performance usually results from unsuitable fan selection and/or improper installation. Refer to the ACGIH Industrial Ventilation Manual, Chapter 6, "Fans", for a information on design techniques to limit systems effects.

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NAVFAC DEVELOPS INTERIM TECHNICAL GUIDANCE

Interim Technical Guidance (ITG) documents contain information on issues that have not yet been incorporated into Navy engineering criteria handbooks. An ITG document is usually only a few pages long. Go to the NAVFAC Criteria Office website at http://www.efdlant.navfac.navy.mil/Lantops_15/ and look for "Interim Technical Guidance (ITG)" in the left-hand frame--near the bottom.

The following OSH related ITG documents, already in the system, address: (1) Emergency Showers and Eyewash Stations and (2) Hazardous Material Minimization Centers. NAVFAC is developing an ITC that focuses on Carbon Monoxide (CO). The new ITC will identify design criteria and operational procedures to reduce CO overexposures, particularly in Navy housing.

Included in the website, under "Publications", is a list of Navy military handbooks and design manuals available for downloading. You need Adobe Acrobat to view the documents. All design manuals will eventually be converted to military handbooks for inclusion in the Department of Defense criteria program.

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IAM CONNECTION

Readers: In the January 1999 newsletter we provided information regarding the requirements for posting and labeling of ACM. A reader from the Ordnance Environmental Support Office provided the following comment:

IAM. Just a note on labeling of asbestos: though floor tile does not have to be labeled, asbestos fibers can be released if the floor is buffed improperly. OSHA requires labeling the buffer explaining the asbestos hazard, or placing a sign in the area where the buffer is stored. Additionally, train the folks using the buffer on how to use the buffer without releasing asbestos fibers.

IAM. Is there any criteria for filters in health care facilities? R. A., Naval Hospital, NAS Lemoore.

R.A. Health care facility criteria is defined in MIL-HDBK-1191, Medical Military Construction Program--Facilities, Design and Construction Criteria. Refer to the appendices. The manual should be used as a reference for health care facilities.

The manual is in revision with input from the other services, so mechanical engineering related questions should be addressed to Tara Henderson, NAVFAC Code09MD her e-mail address is tahenderson@efaches.navfac.navy.mil.

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OZONE GENERATING AIR CLEANERS

The EPA issued a report calling literature from ozone generating product manufacturers "misleading". Go to the EPA website http://www.epa.gov/iaq/pubs/ozonegen.html to find more information.

The following summarizes the report: "Some vendors suggest that these devices have been approved by the federal government for use in occupied spaces. To the contrary, NO agency of the federal government has approved these devices for use in occupied spaces. Because of these claims, and because ozone can cause health problems at high concentrations, several federal government agencies have worked in consultation with the U.S. Environmental Protection Agency to produce this public information document."

The report goes on to say:

- Available scientific evidence shows that at concentrations that do not exceed public health standards, ozone has little potential to remove indoor air contaminants
- There is evidence to show that at concentrations that do not exceed public health standards, ozone is not effective at removing many odor-causing chemicals.
- If used at concentrations that do not exceed public health standards, ozone applied to indoor air

does not effectively remove viruses, bacteria, mold, or other biological pollutants.

Some vendors use terms like "pure air" and "energized oxygen" to convince users they are improving their living spaces by purchasing the products. These products may already be found in Navy buildings because unsuspecting users purchase the ozone generators and bring them into their house or workplace. While the report doesn't provide details, it states the most common approaches to reduce indoor air pollution are:

- Source control--preferably eliminate or minimize the contaminant.
- Ventilation--ESC425 can help with engineering concerns.
- Air cleaning--used in conjunction with the previous two methods.

Other articles that discourage the use of ozone generators to purify the air are:

- Household Air Cleaners, Consumers Union, October 1992, pp. 657-662
- Effect of an Ozone -Generating Air-Purifying Device on Reducing Concentrations of Formaldehyde in Air, Eric J. Esswein and Mark F. Boeniger Applied Occupied and Environmental Hygiene, 9(2), Februaury 1994 pp. 139-145.
- Use of Ozone Generating Devices to Improve Indoor Air Quality, Mark Boeniger, American Industrial Hygiene Association Journal (56), June 1995, pp 590 - 598
- Research Sheds Unfavorable Light on Ozone Generators, IEQ Strategies, February 1998, pp 2 - 4
- Study Questions Ozone's Effectiveness as a Remediation Tool, IEQ Strategies,February 1998, pp. 5 - 7

Contact us about your ventilation system if your have engineering or equipment concerns at iam@nfesc.navy.mil or our web page http://www.nfesc.navy.mil/enviro/esc425/NoshArBr.htm. If you have health related IAQ concerns, contact your local industrial hygienist or the Navy Environmental Health Center at http://www-nehc.med.navy.mil/ih/.

The Indoor Air Monitor is published bimonthly by the NAVOSH Air Branch of the Naval Facilities Engineering Service Center. The views and opinions expressed in this publication are not necessarily those of the Department of the Navy. Send information, comments, or ideas to: Commanding Officer, NFESC425 Attn: IAM, 1100 23rd Avenue, Port Hueneme, CA 93043-4370, or via e-mail to iam@nfesc.navy.mil. Please include your name, mailing address, e-mail address, and phone number.